

The Shape of Landscape: An Experimental Research to the Perception of the Concept of Landscape

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ABSTRACT

Landscape is constructed socially by means of communication and utilisation, but the underlying processes of these remain poorly understood. After a theoretical discussion, an experimental empirical study was conducted using the mental mapping technique. Mental maps reflect how individuals perceive the concept of landscape, and using a hybrid qualitative and quantitative analysis, it was extracted how individuals' choices can be placed within a macro-societal framework. The conclusions read that indeed landscape is constructed partly through individual utilisation, but that communicating place and landscape is of more importance. The mental mapping technique proved valuable but difficult to operationalise.

Keywords

Landscape, perception, social construction, mental maps.

INTRODUCTION

In 2000 a revolutionary new definition of *landscape* was adopted by the European Union, being

an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors. (Council of Europe, 2008, p9)

This perception focused definition is at odds with previous interpretations of landscape as something plainly physical. Perception of landscape, however, remains poorly understood (De Montis, 2014). This research tries to unravel how landscape, as a generic concept, is perceived and how this perception works. That we all have our own associations with landscape is out of question, but are there macro-societal and sub-societal constructions visible? This is attempted to answer using the experimental mental mapping technique.

Social construction

Until the 1980s place and landscape were considered physical structures that carried meaning of their own, which simply could be observed by people. This self-standing 'spirit of place' is called the *genius loci* (Holloway & Hubbard, 2001). The idea had become abandoned from the 1970s onwards, when it was understood that places and landscapes are social constructions, and that the meaning of place and

landscape is individual and situational. Individual meaning is influenced though by society at large and criss-crossing meanings reproduced by a variety of sub-societies, such as nations, ethnic groups, clubs, schools, political parties, city-dwellers versus countryside-people, and professions. Within a society, thus, a multitude of meanings of landscape exist and render individual's ideas (e.g. Sørensen, 2008). Saïd (1969) illustrates this in his *Orientalism*: Those without first-hand experience with the Orient must rely on communication in order to construct their meaning of the Orient, which tells that the Orient is fundamentally different than their non-Oriental places. Locals from the Orient, conversely, rely mostly on utilisation and local communications, and as a consequence, they do not regard their place as different, or in fact, one single place at all. Lastly, visitors challenge the communication about the Orient at home after their utilisation of the Orient, but may lack the deep understanding to fully understand the so-assumed differences.

Kühne (2012) sheds light on the underlying workings of landscapes' social constructions, for which he distinguishes four dimensions:

- The societal landscape is the macro-societal dimension that produces and reproduces meaning that 'colours' individuals' perceptions through communication and (routine) utilisation.
- The individually actualised societal landscape is how individuals process the societal meanings and merge them with personal experiences.
- The external (physical) space is the physical substrate on which meaning is projected.
- The acquired physical space is where meaning is addressed to selected 'puzzle pieces' of the external space. Society pre-selects certain elements, sub-societies select others, and individuals choose elements symbolic for the overall meaning of landscape.

These puzzle pieces can be assessed as representations of the role of society, sub-societies and individuals' role in addressing meaning to the concept of landscape.

Assmann (1992) approached the distinction between the individual and the societal by means of the collective memory, where communication keeps memories that shape meaning of place alive. Individual memories are shaped within *cadres sociaux* or 'social frames' that are set by society at large. Education reproduces such 'cadres' by teaching countries' art history, where

landscape always has taken an important place. Which landscapes are depicted may 'steer' individuals' meaning of landscape. In similar vein, links on social media such as *10 Places You Must Have Seen Before You Die* (title invented by author) reproduce our idea of what landscape is: often mystical or spectacular, rarely everyday scenery. Since education and culture is different in each country, origin may tell something about the societal role in the meaning of landscape – or are links such as on social media standardised the concept of landscape?

Landscape socialisation

Kühne (2012) uses the four dimensions in his theory on the landscape socialisations. A socialisation is

the process through which individuals internalize the values, beliefs, and norms of a society and learn to function as its members. (Calhoun, 2002)

The first landscape socialisation takes place during early childhood. Parents, school, television and others communicate in such a way about places and landscape that children build up a social construction of landscape. This societal landscape and collective memory is individually actualised through personal utilisation, ranging from walks in the garden to exotic holidays. From the external space that is trafficked or communicated, certain elements become leading in the meaning of landscape.

The second landscape socialisation occurs likewise but to a small group of people who navigate the concept of landscape in their professional life. Through very specialised discourse and practices, geographers, planners and landscape architects develop a fundamentally different social construction of landscape than 'non-landscapists'. Since higher education gives students a thorough introduction to professional life, I argue that the second landscape socialisation can take place before genuine employment.

Research objective

Theory is tested and supplemented by an empirical study that attempts to answer how landscape is perceived, how the perception and social construction come into being, and how this can be found out in itself. In order to operationalise these objectives, two parameters – origin and education – have been chosen that supposedly influence landscape's perception. For both it is questioned how they on their own contribute to the social construction of landscape, and the results are evaluated in the light of discussed theory. The method used is the mental mapping technique, which makes this research an experimental research in unknown territory. Therefore, this research should be regarded as a first stepping stone and a catalyst for further empirical understanding of landscape perception.

METHODOLOGY

This research employs an experimental usage of the mental maps. Mental maps

summarize each individual's knowledge of their surrounding in a way that is useful to them and the

type of relationship they have with their environment. (Holloway & Hubbard, 2001, p48).

Usually mental maps are used to study people's knowledge and perception of a *particular* landscape, perhaps without fixed boundaries but with at least one fixed location. This research however is closer to a semantic study (i.e. study to a word) where not a fixed place is studied. Devoid of geographical reference, the mental maps are essentially drawings. Respondents were instructed "to draw what you instantly think of the moment when you close your eyes and I say the word *landscape*". They received a blank form with below a half-dozen questions on age, educational background, origin in terms of country and origin in terms of typology (i.e. description of the home place, e.g. forest, city). In order to get a highly varied sample, data was collected during breaks of various lectures both in- and outside the faculty of spatial sciences in Groningen, The Netherlands and Vienna, Austria in order to analyse the role of education in the second landscape socialisation. All except one course were taught in English in order to have more variety in nationalities and thus different origins.

The experimental character is visible in the analysis process. Mental maps, as pioneered by Lynch (1960), used to be linkable to fixed coordinates, providing points of reference for comparisons. For example, in a fictive research on Paris' landscape, any two triangles can easily be interpreted as the Eiffel Tower and the Louvre. With maps devoid of geographical reference – i.e. drawings – interpretation is more intricate. This leaves questions such as: How many buildings makes a village?; how many trees a forest?; does a tractor count as a car? This forced me to generalise features into categories such as vegetation, animals, human constructions, infrastructure, and so forth.

Adding to uncertainty comes the fact that research on perception and meaning always involve many moments of interpretation that can bias the results. I formulate a question carefully, having my respondents in mind and judging their understanding of the questions' meanings. They have to listen and interpret them, always taking in mind the question 'what would the researcher mean with this'. Then, their thoughts (on landscape) must be 'translated' into mediums such as words or drawings. Since landscape is very much a visual thing – though not exclusively – mental mapping methods seem better at reflecting perceptions than interviews could (Bartram, 2010; Kitchin, 1994). Last, the researcher must analyse and interpret the results and say something meaningful about it. This makes research on perception and meaning inherent to great uncertainty. Yet this does not make this research invalid – one cannot read minds and must figure out some way of telling what people's automatic ideas are – as long as no rigorous conclusions are drawn. I limited the quantitative analysis to frequency counts, and also analysed the maps qualitatively by observing, 'reading' and describing each map carefully.

RESULTS

The sample size is 162 respondents: 108 from The Netherlands, 22 Austrians, 14 Indonesians, and 17 other nationalities. 79 respondents did a landscape related undergraduate programme (of which 19 forest and land management) and 84 did something else. The maps underwent three analyses: for typological origin, for country of childhood, and for the field of study.

Typological origin

City-dwellers belong to an urban sub-society where they use and communicate their external space differently than the countryside-dwellers do in their everyday lives. The external space in urban and rural areas is so different that the sub-societal landscape and acquired physical space should be radically different. However, the data shows a more nuanced image.

The question on typological origin was often misinterpreted. Of the remaining 78 valid responses from people with a rural background, about half (37) featured natural scenes devoid of human signs. Only 3 included urban features; 27 included single houses. This tells that their perception and social construction of landscape is one of nature and fields; not the built-up environment. A less clear line is visible among city-dwellers: Of the 40 valid responses, 9 added urban features (i.e. express ways, skyscraper skylines, apartment blocks) whereas 17 features scenes devoid of human signs. Buildings in general were more common than among villagers. Apparently, communication that tells that landscape is something rural outweighs the importance of daily utilisation of an area not rural.

Region of childhood

Each country has its own external spaces, and different utilisation and communication cause different societal and individually actualised societal landscapes. The choice of elements in the mental maps tells their perception of the acquired physical landscape. An Austrian would make a different selection of 'puzzle pieces' than a Dutchmen.

Out of the 108 valid Dutch responses, 43% drew a landscape characteristic to The Netherlands (flatland, straight horizons, ditches, cows), whereas 34% drew something exotic; 19% combined the Dutch with non-Dutch elements. Thus, two parallel social constructions of landscape seem to occur: On the one hand a perception based on daily utilisation dominates and on the other hand a communication-based perception dominates, where landscape is communicated via undefined media as mountainous or tropical – or, non-Dutch.

In order to know which elements carry the overall meaning of a typical 'national' landscape (or better: which elements are projected meaning on as carriers of the idea of landscape), there was selected one Dutch, Austrian and Indonesian mental map, each representative for the overall group *that did not draw exotic landscapes*. This group excluded mental maps that featured exotic landscapes. Common to the *Dutch construction of the Dutch landscape* is flatland with ditches, livestock,

deciduous trees, roads, waterways and box-shaped farms with pointed roofs. Austrians, on the other hand, feature hills and mountains with *Alme* (typical meadows) with cabin-style farms, lakes and ponds, *Horn*-like mountain summits and coniferous trees. The Indonesian map features *sawas* (rice fields), hills, many trees and flowers, roads, scattered houses, and the sea. Other Indonesian maps featured volcanoes as well. All included small animate features (flowers, birds).

The result may confirm all stereotypes, but that raises the question why. Why do I actually myself interpret scenes as stereotypical? Possibly, the way landscapes are communicated is stuck in such fixed patterns that we are unable to deviate from them. The ideal-type national landscape is readily actualised by individuals. It emerges that certain 'puzzle pieces' are addressed meaning symbolic for the overall landscape, and other elements can be omitted.

Two types of features were absent in many maps and seem not to be part of the concept of landscape. First, humans and cars lacked in most maps, which is odd given their presence in everyday life. Apparently, again the role of communication dominates the role of (daily) utilisation. Can landscapes then exist, if they should not include (other) humans and (other people's) cars? Second, the absence of the sky and its conditions is remarkable. 38% of the respondents did not feature any sky, 38% featured clear skies, and 16% (some) clouds. Trees were always in their summer state. No signs of snow or night were present, although these are hard to draw on white two dimensional sheets. These notions would leave the suggestion that landscape is a good weather, lit and summery thing – which is at odds with both our utilisation and the idea that landscape painting traditions have shaped our idea of landscape, since many landscape artists were fond of tempestuous, half-dark and wintery landscapes (Rijksmuseum, 2013).

Field of study

According to theory, students with a landscape-oriented education would perceive landscape differently than other students, who lack specialised understanding and experience. Indeed the second landscape socialisation seems to have occurred among landscape professionals-to-be, who more frequently drew urban characteristics than their non-landscape oriented fellow students. However, it appears that the phrase 'landscape oriented study' needs to be put into perspective, since predominantly the 'hard-core' landscapists – landscape architects and planners – show signs of a second landscape socialisation. Geographers and others perceive landscape as natural or rural, often devoid of human signs. It goes without saying that especially the forest management students perceived landscape as devoid of human presence.

These results confirm Kühne's expectation that education could already initiate the second landscape socialisation. However, the correlation is too weak to give a hard statement. Also the landscape architects and planners featured rural scenes, and their mental maps can be

considered a widening of the social construction of landscape instead of a new one. In other words, landscape architects may see the landscape as a mosaic of many different things, whereas laymen see landscape as more of the same.

CONCLUSION

The role of origin, both typological and geographical, was analysed as it was assumed that individually actualised landscapes, based on utilisation and communication, would reflect a macro societal landscape. Indeed this is the case for the majority of people, but a considerable minority perceives landscape as something (partly) exotic, indicating a stronger role for communication than utilisation in the social construction and perception of landscape. The domination of the role of communication is a tendency found throughout the research, indicating that our idea of landscape is mainly based on how we talk and hear about it, instead of using it. However, no clear connection was found with the idea that painting traditions colour our perception, meaning and social construction of landscape.

Specialised discourse and practices among societies and sub-societies, including those based on origin and education, may differentiate the social construction of the concept of landscape. The second landscape socialisation takes place particularly visibly among landscape professionals-to-be. Educations and professions with only peripheral interest to landscape do not undergo the second landscape socialisation.

The mental mapping technique proved valuable and valid in this experimental usage, but many lessons were learnt. Analysing maps both qualitatively and quantitatively is difficult when the sample size is too high, since qualitative analysis claims time resources and quantitative analysis is restricted to frequency counts. Being a semantic study, the maps were essentially drawings, which are difficult to analyse. However, they do contain a wealth of information and detail, shifting the question 'Is this a useful and valid method?' to 'How can the method be used validly and usefully?'. The research offers a sound stepping stone for further research on landscape, whether that will be semantic, or directed towards 'named' landscapes: the landscape people dream of, their local landscape, their everyday landscape, their night landscape, or for the sake of the Landscape Convention: the European landscape.

Even though this research has its limitations in method and in its application of planning aspects, the discrepancy between landscape and the daily living environment is clear. The European Landscape Convention may put perception central, but that misses the point that everyday landscapes essentially are non-landscapes when people hear the word landscape. How to plan for that? Still, it must be noted though that even though people may often not picture the local landscape when they hear the word landscape, they do often appreciate the local landscape

when asked specifically, such as 'Malta's landscape' (Conrad et al., 2011).

ROLE OF THE STUDENT

Renno Hokwerda wrote his thesis for the bachelor of Environmental and Infrastructure Planning. The faculty assigned him a theme, the European Landscape Convention, and a supervisor, dr. ir. K. Gugerell. After her approval, I deviated from this narrow theme and started to disentangle the theoretical foundations of the concept of landscape, rather than its planning. The entire research's process, including literature study, data analysis and writing was conducted by the student, except for one sample collection in Vienna, where a colleague of my supervisor was so kind to do it on my behalf.

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